

COGNITIVE IMPAIRMENT AND SELF-MANAGEMENT IN TYPE 2 DIABETES: AN INTEGRATIVE REVIEW

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Purpose: Type 2 Diabetes Mellitus (T2DM), the most common form of diabetes, affects millions of people and currently is at epidemic levels worldwide. T2DM can lead to serious complications, which can be avoided, or at least ameliorated, with proper diabetes-related knowledge and self-management. T2DM has been associated with being a risk factor for cognitive decline; however, current literature lacks an overall analysis of how cognitive impairment affects, or is associated with, diabetes self-management. Knowledge of the potential influence of cognitive impairment on diabetes self-management can help older adults and their caregivers adapt and improve their self-management behaviors. The purpose of this integrative review was to analyze the existing literature on cognitive impairment in T2DM and determine the affects and/or relationships, if any, that exist between cognition and diabetes self-management.

Methods: For this integrative review, a literature search was conducted by using established procedures and by selecting relevant studies from an online search database (Pubmed). The articles in this review were selected according to the following inclusion criteria: English language, published between 2000-2014, and a participant population involving older adults aged 55 years and older who were diagnosed with T2DM. Selected articles also were required to involve a sample of individuals with impaired cognition, and diabetes self-management, either traditional or adapted for persons with impaired cognition, or an analysis of a relationship between impaired cognition and diabetes self-management behaviors. A table was used as the organizational tool to summarize extracted key information from the articles. The table contained columns that illustrated data on the authors and year that the study was published, the design and purpose of the study, sample and setting, the relationship between and/or intervention effects of cognition and diabetes self-management, the manner in which impaired cognition was identified, as well as the measurements and results that were found in each study.

Findings: Ten articles fit the inclusion criteria and were selected to be used in this review. There were numerous exams that were used to test for cognitive impairment, with the most common exam being the Mini-Mental State Examination (MMSE); 80% of the studies used the MMSE as at least one of the tools for diagnosing level of cognitive impairment. While HbA1c was a common tool used to measure effectiveness of diabetes self-management, other tools included home glucose self-monitoring, use of diabetes services, rates of hypoglycemic episodes, and so on.

Conclusion: The presence of cognitive impairment among individuals diagnosed with T2DM was associated with poorer glycemic control and fewer and/or less effective diabetes self-management behaviors. Self-management was identified with tasks such as adhering to medication regime, following diet, and checking blood glucose, among many others. In order to enhance positive diabetes self-management outcomes, clinicians should consider and assess cognitive impairment as a vital risk factor in their patients with T2DM.

Acknowledgments:

- The University of Texas School of Nursing Honors Program

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